FIGURE 1

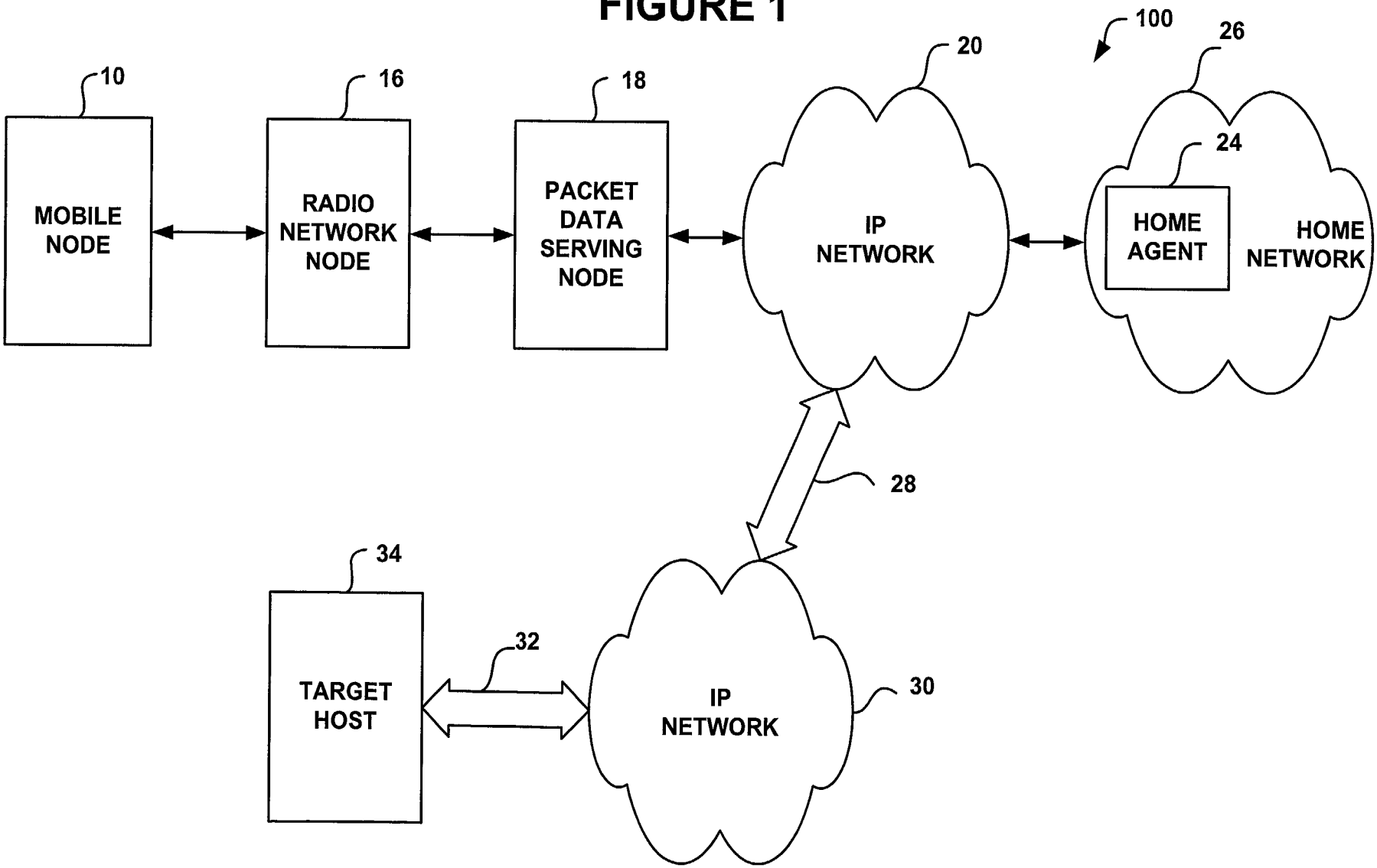
100
10
16
18
20
26
24
MOBILE NODE
RADIO NETWORK NODE
PACKET DATA SERVING NODE
IP NETWORK
HOME AGENT
HOME NETWORK
28
34
32
30
TARGET HOST
IP NETWORK

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FIGURE 2

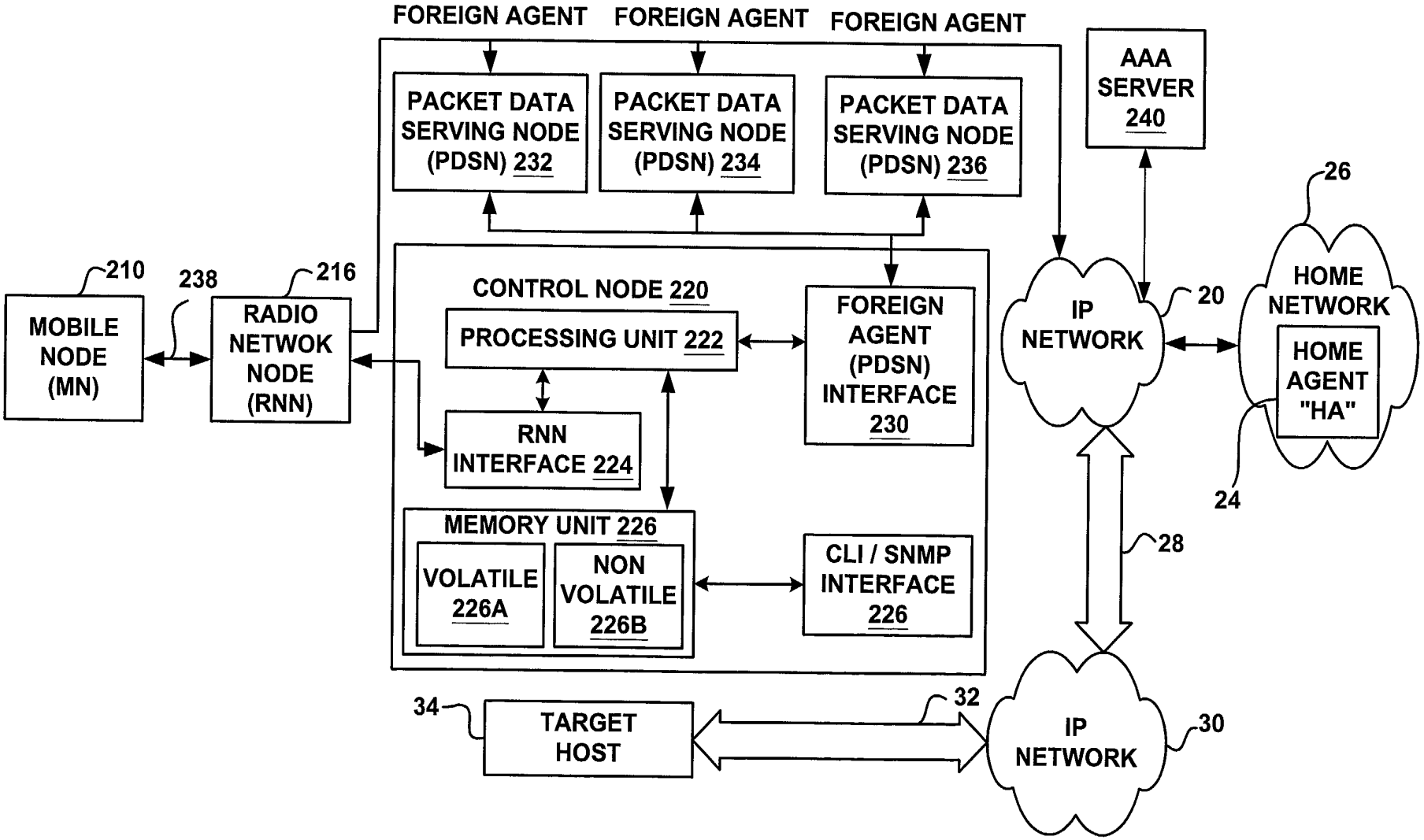
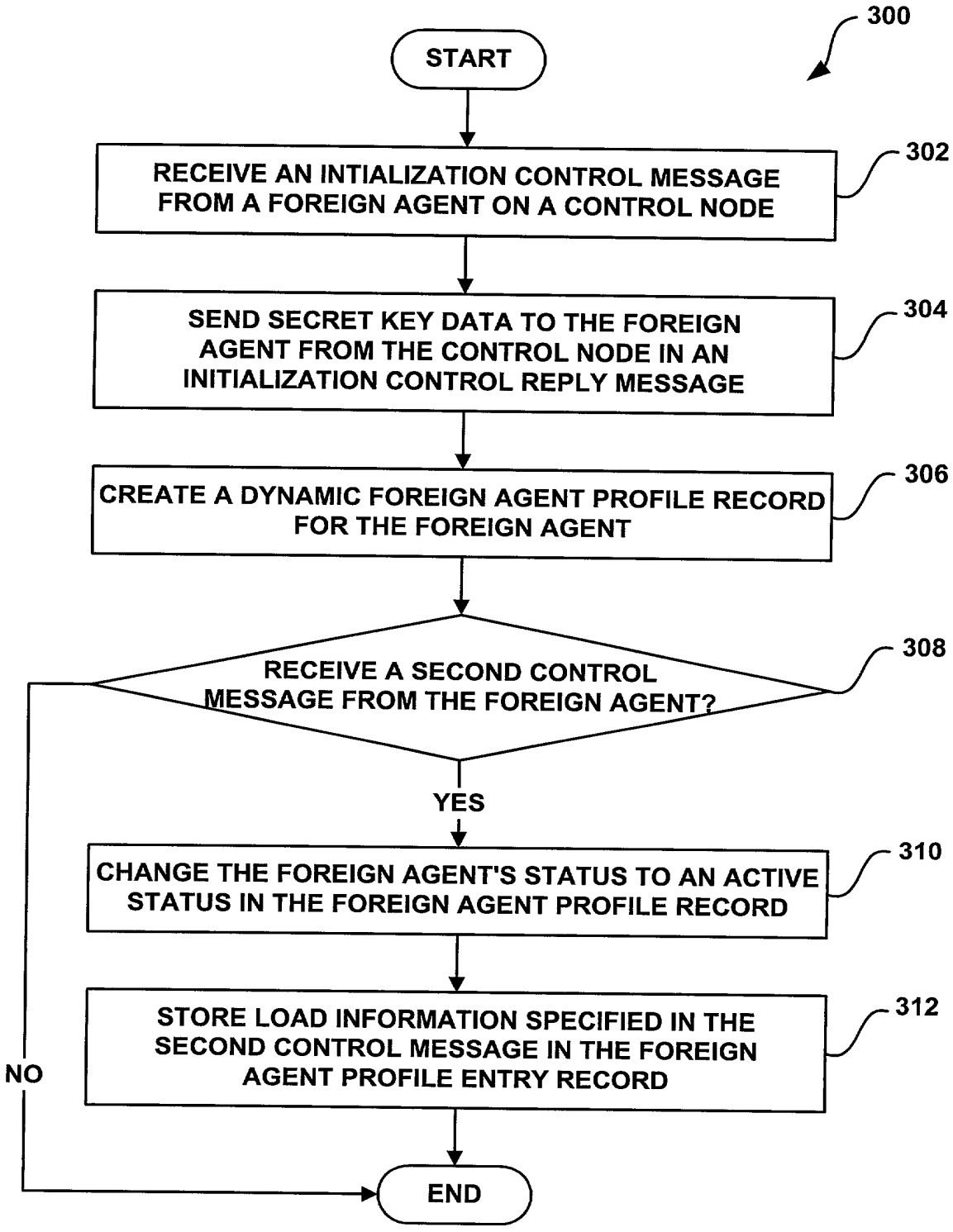


FIGURE 3



Docket No. 06-1401

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FIGURE 4

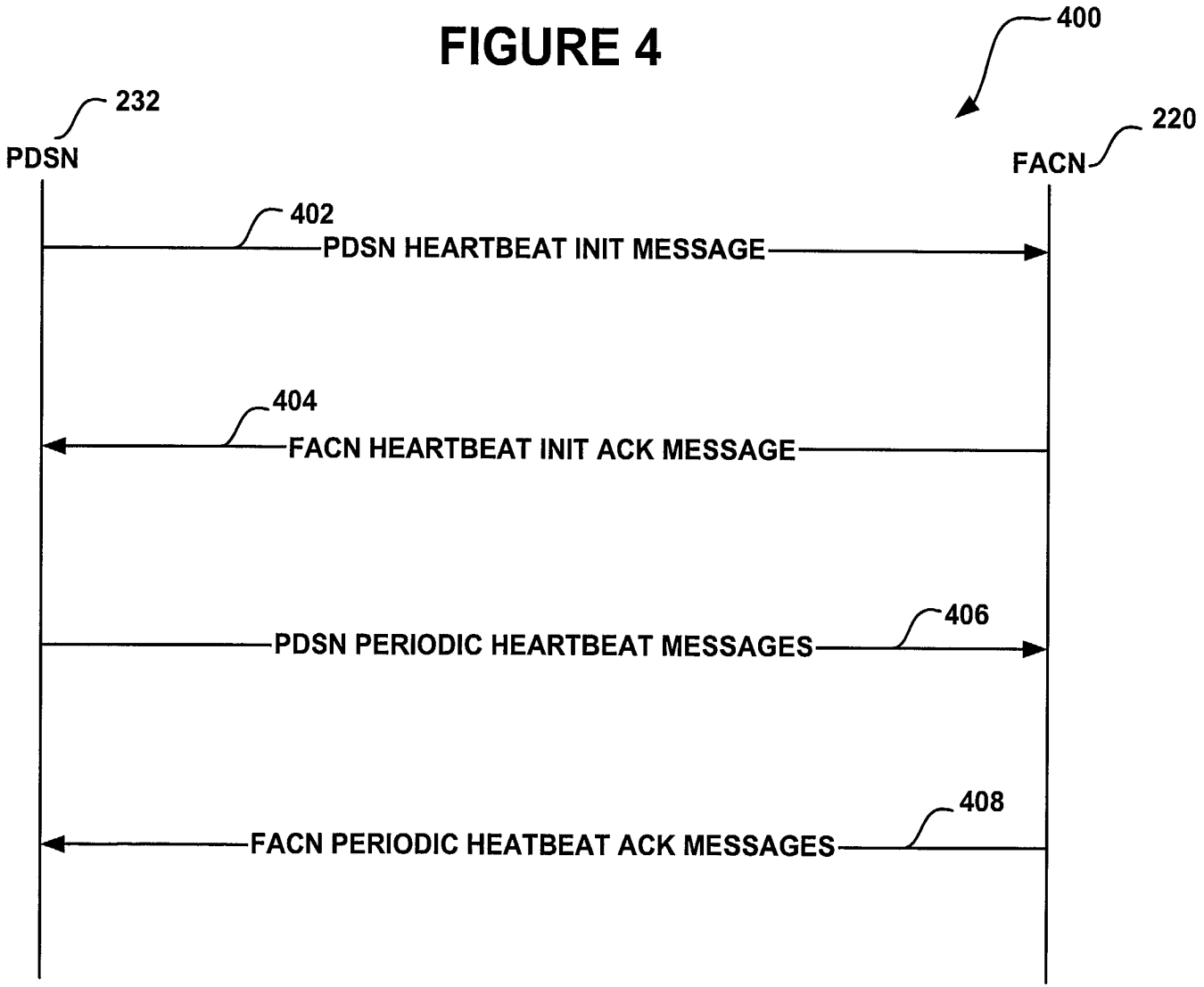

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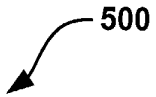
FIGURE 5



IP HEADER 502		
UDP HEADER 504		
TYPE 506	RESERVED 508	LENGTH 510
HEARTBEAT INTERVAL 512		RESERVED 514
FOREIGN AGENT ADDRESS 516		
SUBTYPE CALL LOAD 518	LENGTH 520	FOREIGN AGENT CALL LOAD 522
SUBTYPE CPU USAGE 524	LENGTH 526	FOREIGN AGENT CPU USAGE 528
SUBTYPE MEMORY USAGE 530	LENGTH 532	FOREIGN AGENT MEMORY USAGE 534
FH AUTH TYPE 536	LENGTH 538	SPI 540
SPI 542		AUTHENTICATOR... 544
AUTHENTICATOR...		

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FIGURE 6

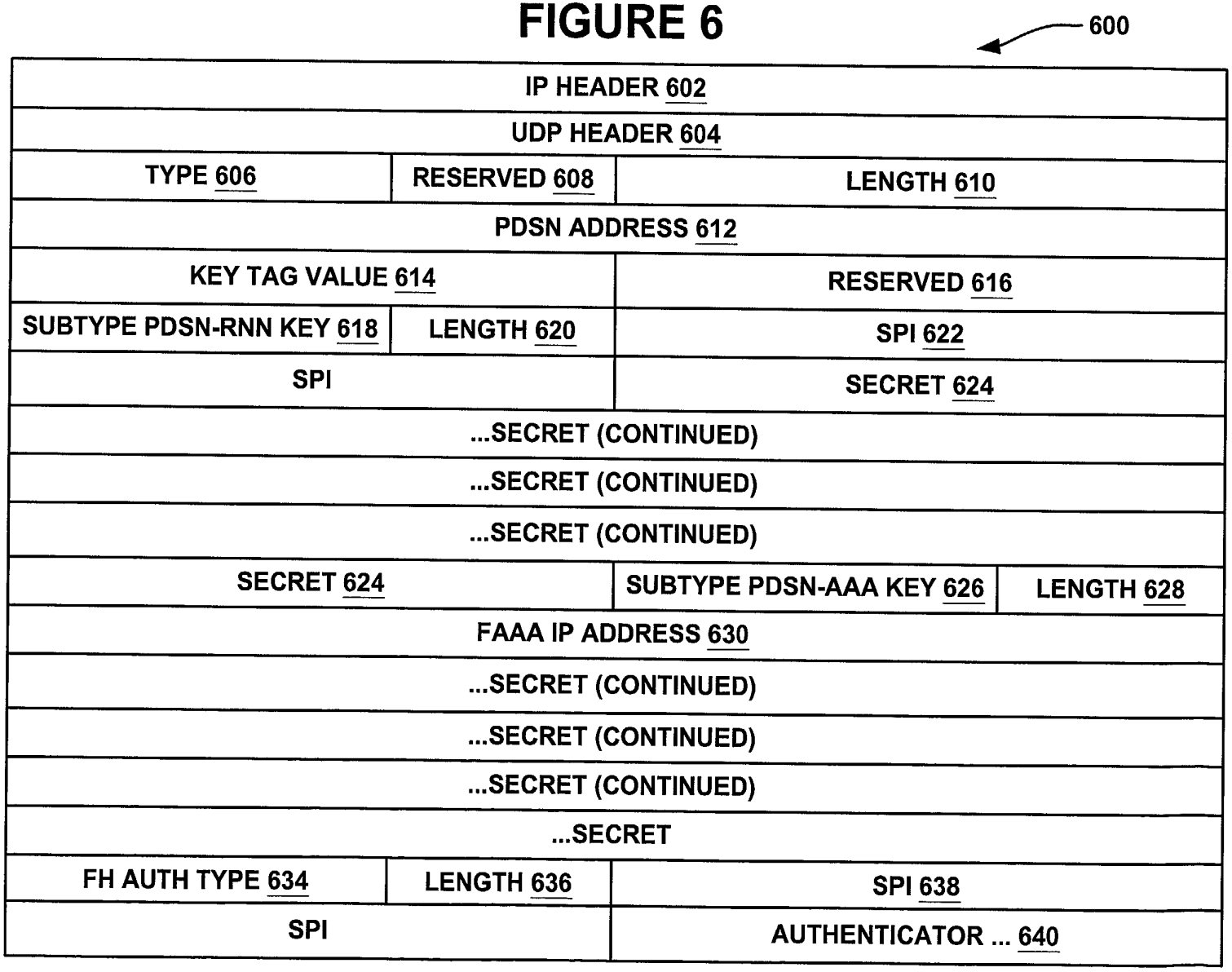

FIGURE 7

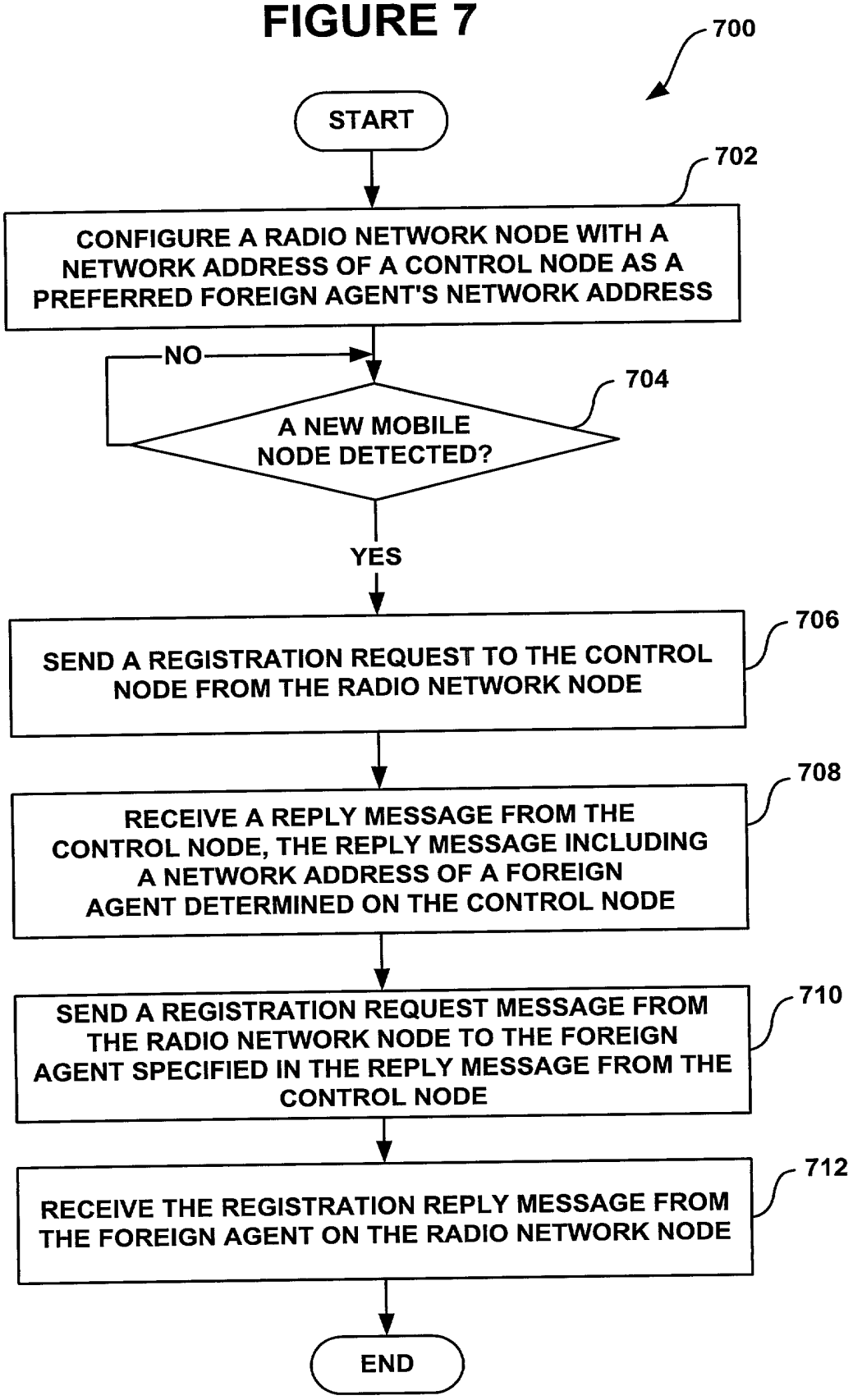

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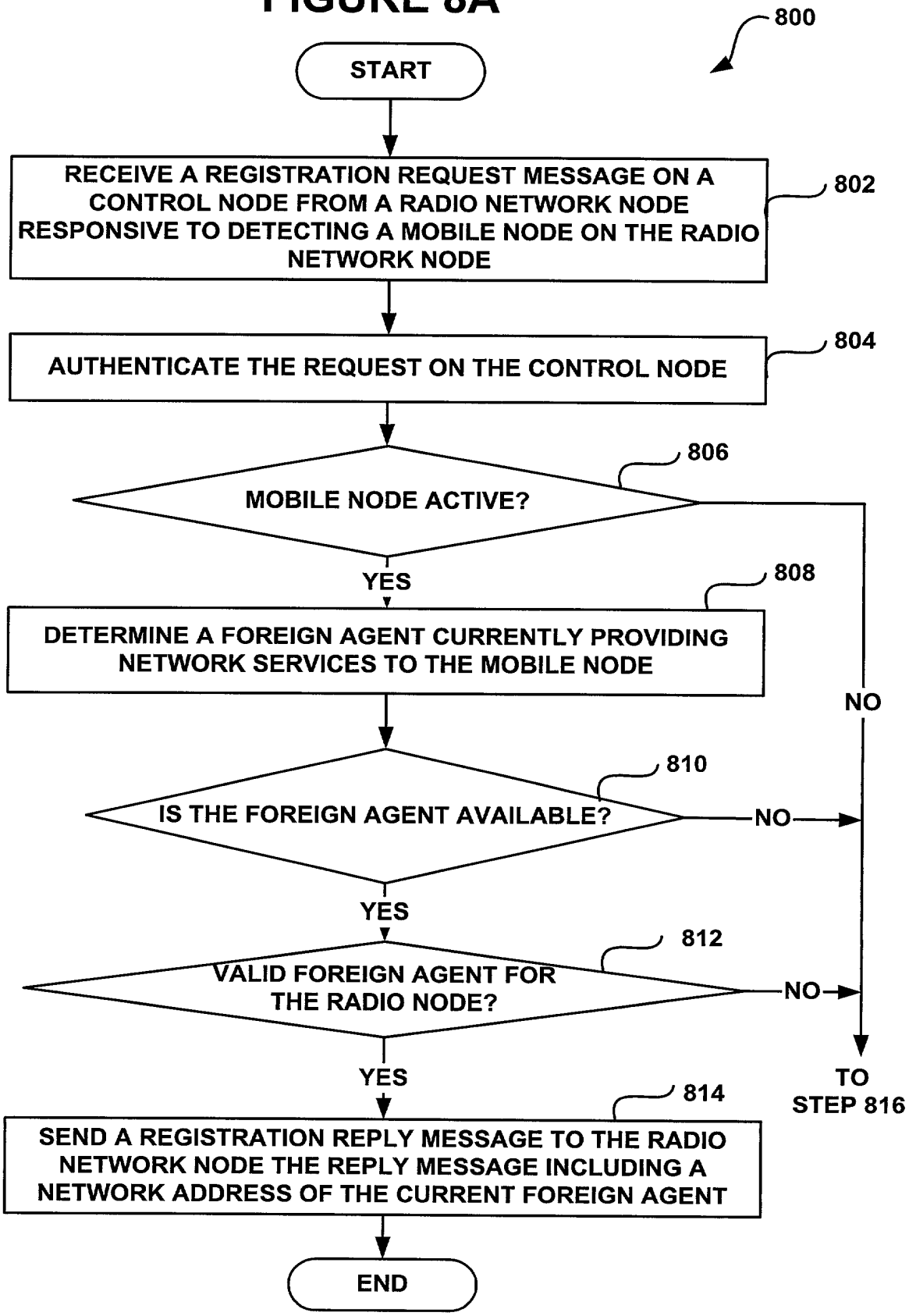
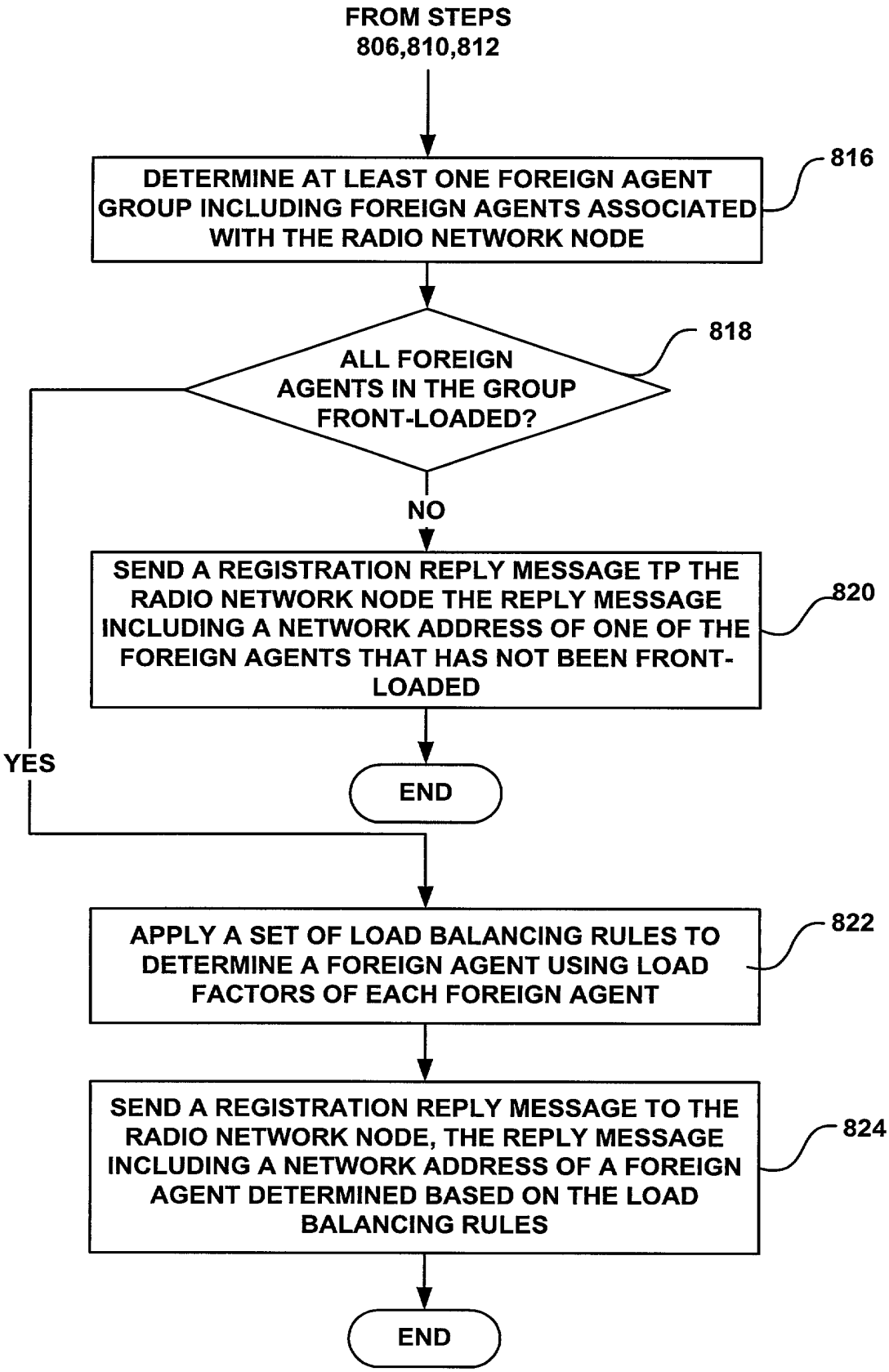
FIGURE 8A



Docket No. 06-1401

FIGURE 8B



Doc#1640 - 05/11/04

FIGURE 9

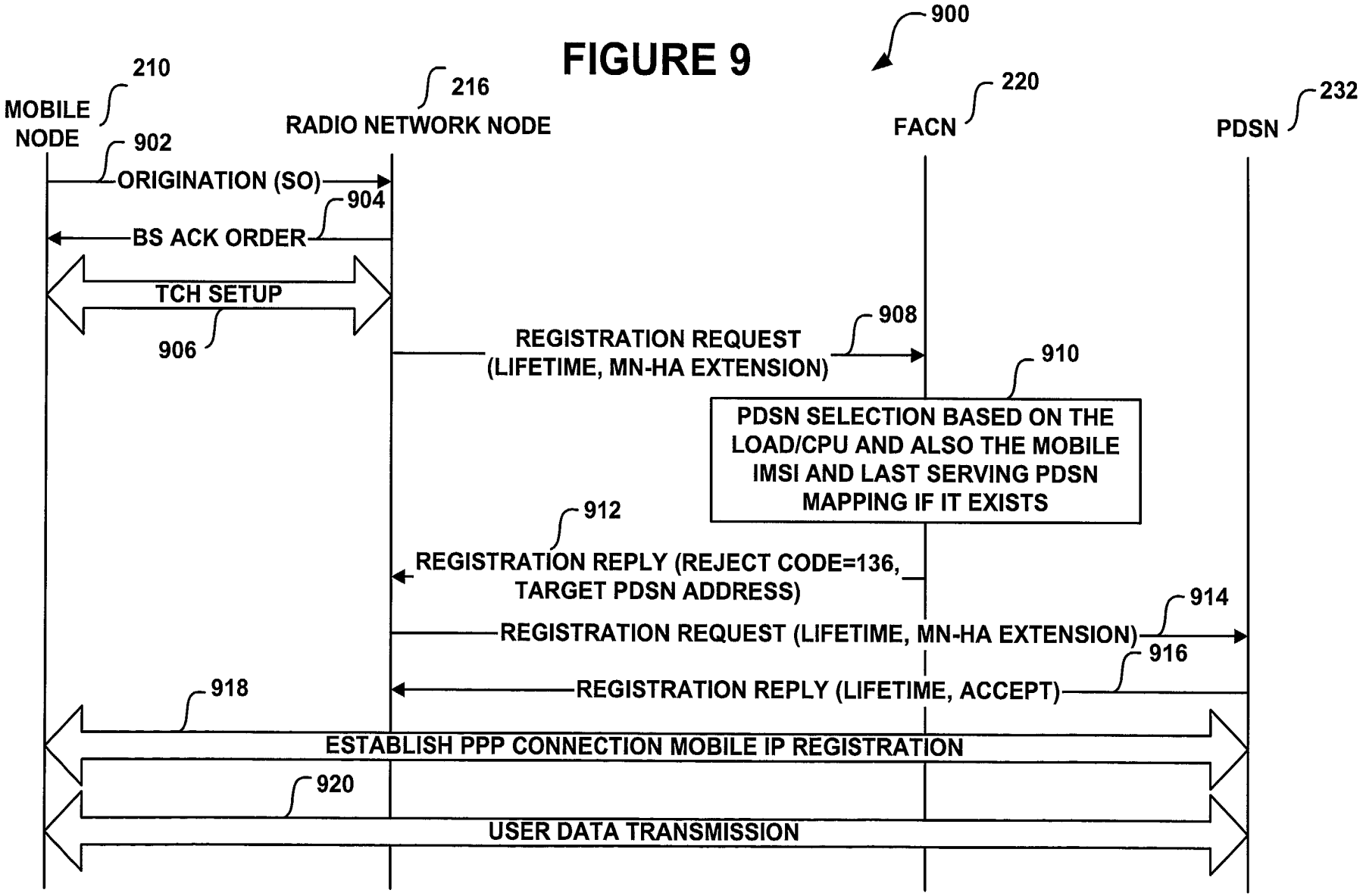
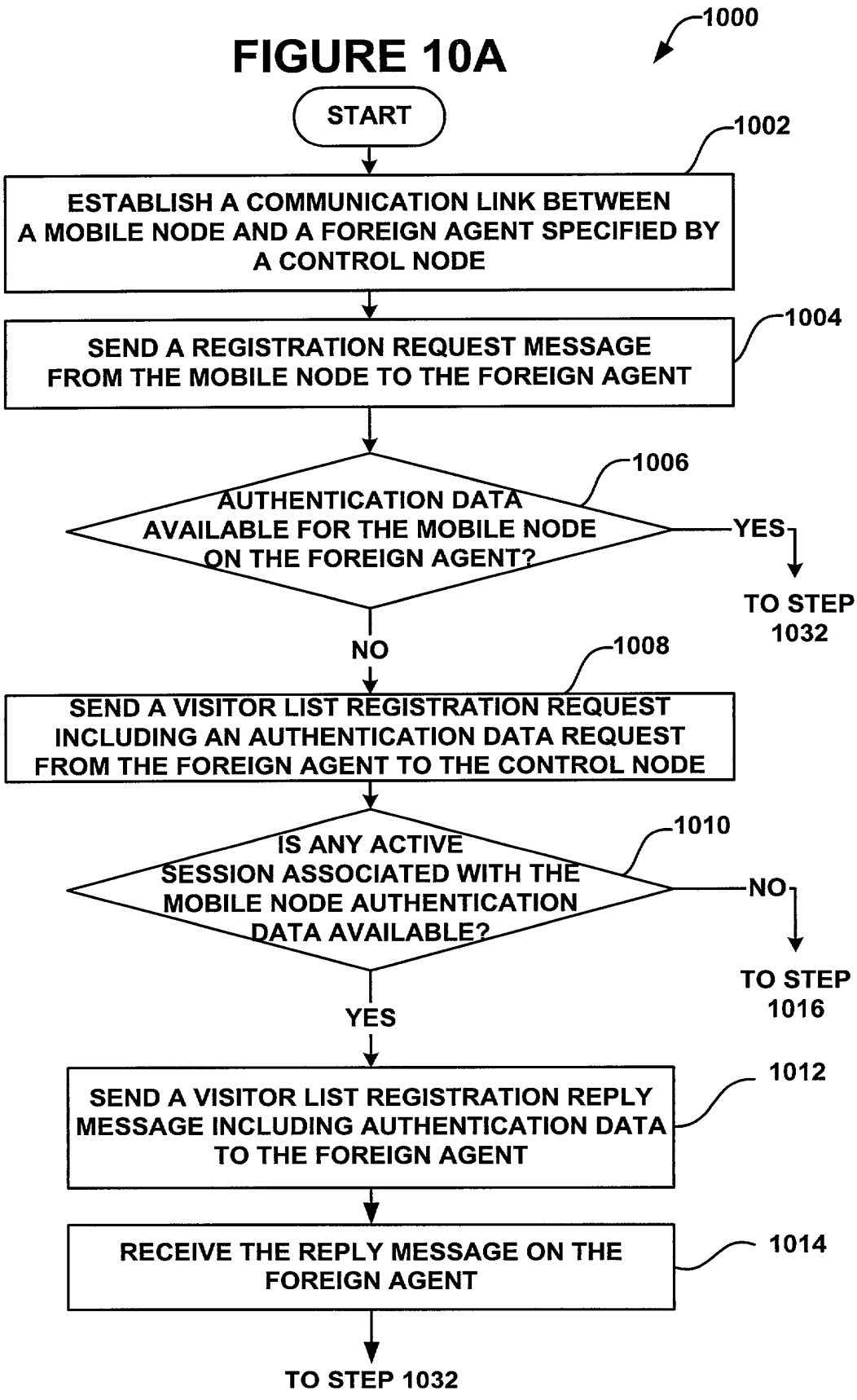

900
210
MOBILE NODE
216
RADIO NETWORK NODE
220
FACN
232
PDSN
902
ORIGINATION (SO)
904
BS ACK ORDER
TCH SETUP
906
908
REGISTRATION REQUEST (LIFETIME, MN-HA EXTENSION)
910
PDSN SELECTION BASED ON THE LOAD/CPU AND ALSO THE MOBILE IMSI AND LAST SERVING PDSN MAPPING IF IT EXISTS
912
REGISTRATION REPLY (REJECT CODE=136, TARGET PDSN ADDRESS)
914
REGISTRATION REQUEST (LIFETIME, MN-HA EXTENSION)
916
REGISTRATION REPLY (LIFETIME, ACCEPT)
918
ESTABLISH PPP CONNECTION MOBILE IP REGISTRATION
920
USER DATA TRANSMISSION

FIGURE 10A



Docket No. 9560.4501

FIGURE 10B

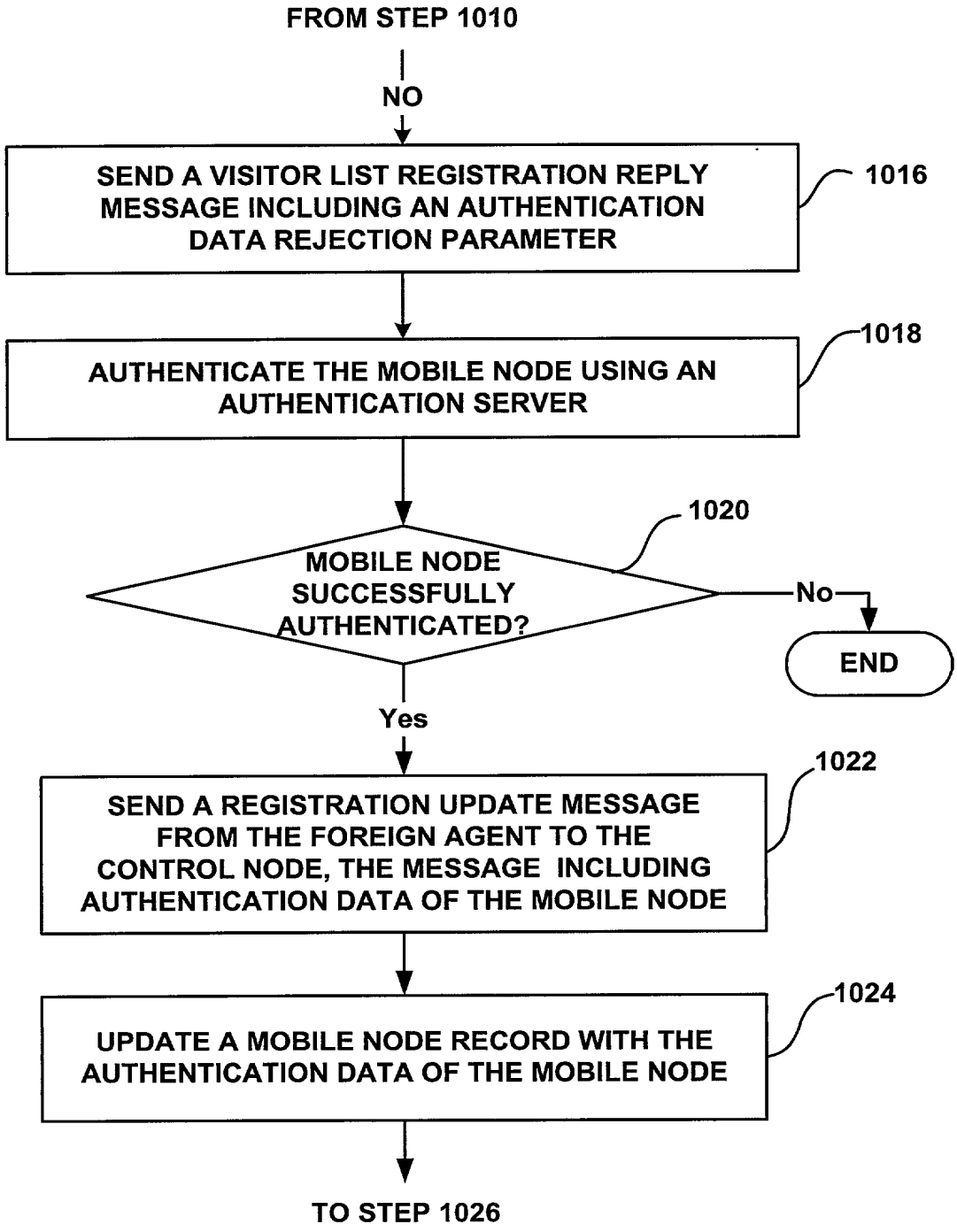

FROM STEP 1010
NO
SEND A VISITOR LIST REGISTRATION REPLY MESSAGE INCLUDING AN AUTHENTICATION DATA REJECTION PARAMETER
1016
AUTHENTICATE THE MOBILE NODE USING AN AUTHENTICATION SERVER
1018
1020
MOBILE NODE SUCCESSFULLY AUTHENTICATED?
No
END
Yes
SEND A REGISTRATION UPDATE MESSAGE FROM THE FOREIGN AGENT TO THE CONTROL NODE, THE MESSAGE INCLUDING AUTHENTICATION DATA OF THE MOBILE NODE
1022
UPDATE A MOBILE NODE RECORD WITH THE AUTHENTICATION DATA OF THE MOBILE NODE
1024
TO STEP 1026

FIGURE 10C

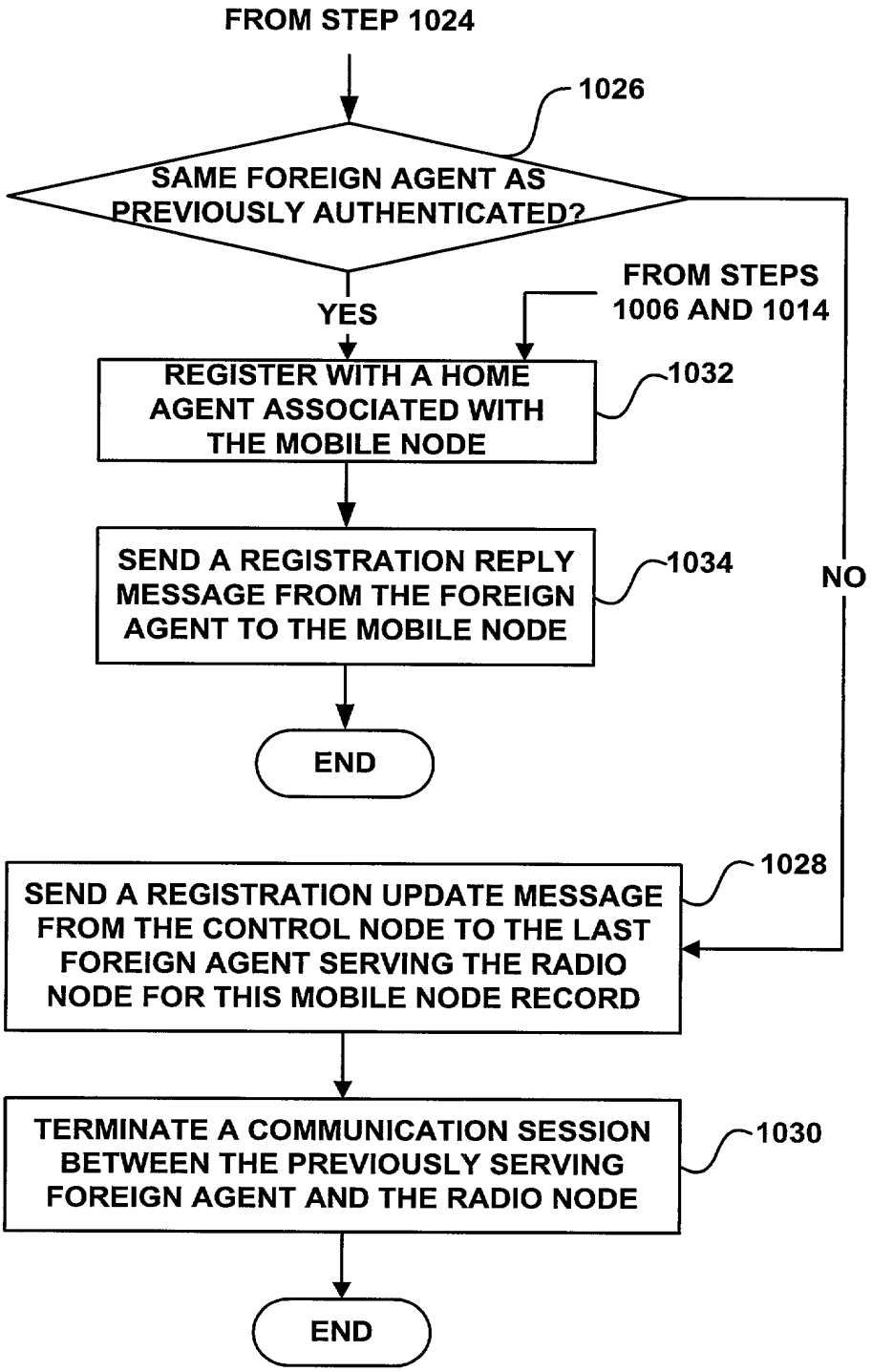


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FIGURE 11

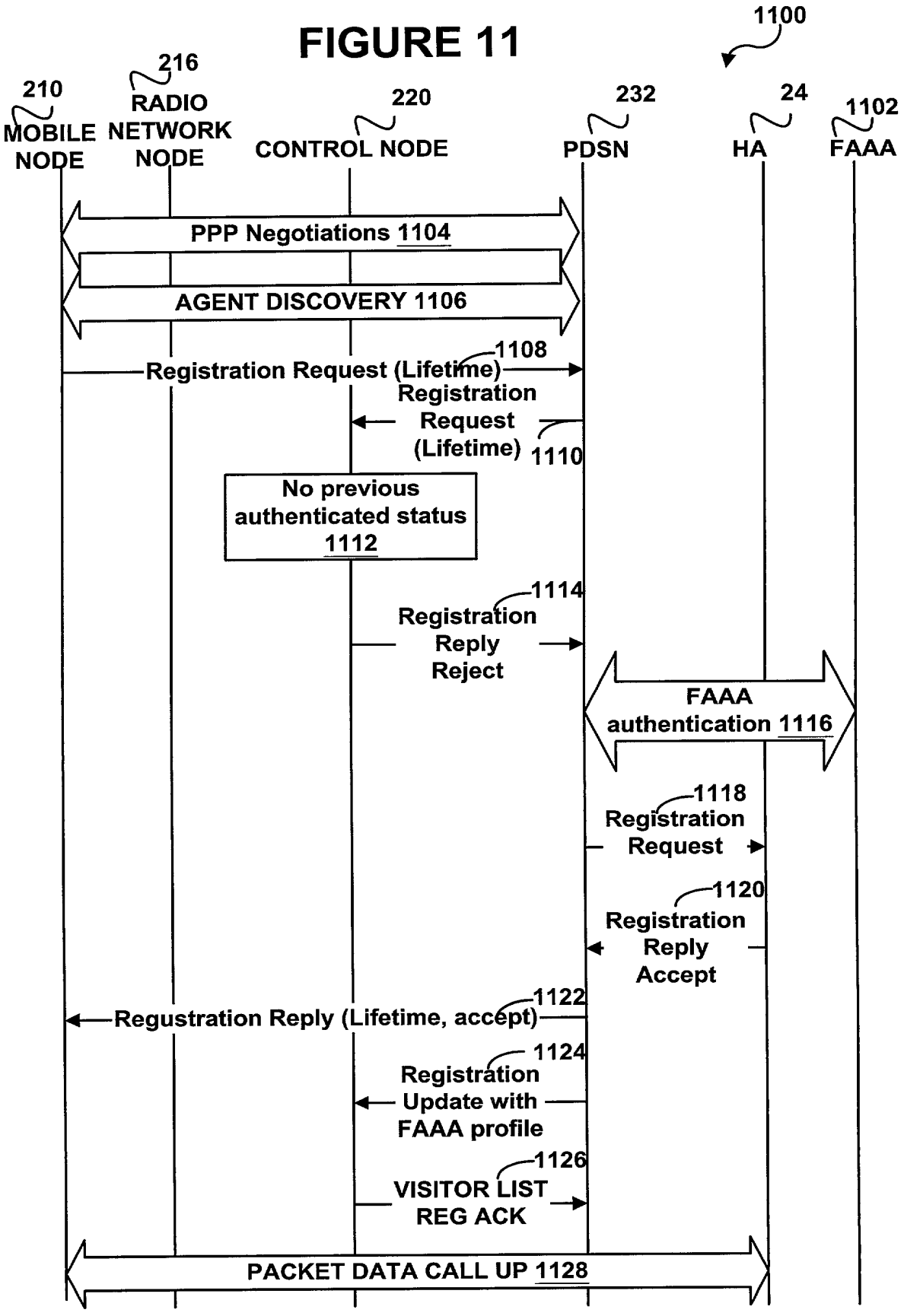
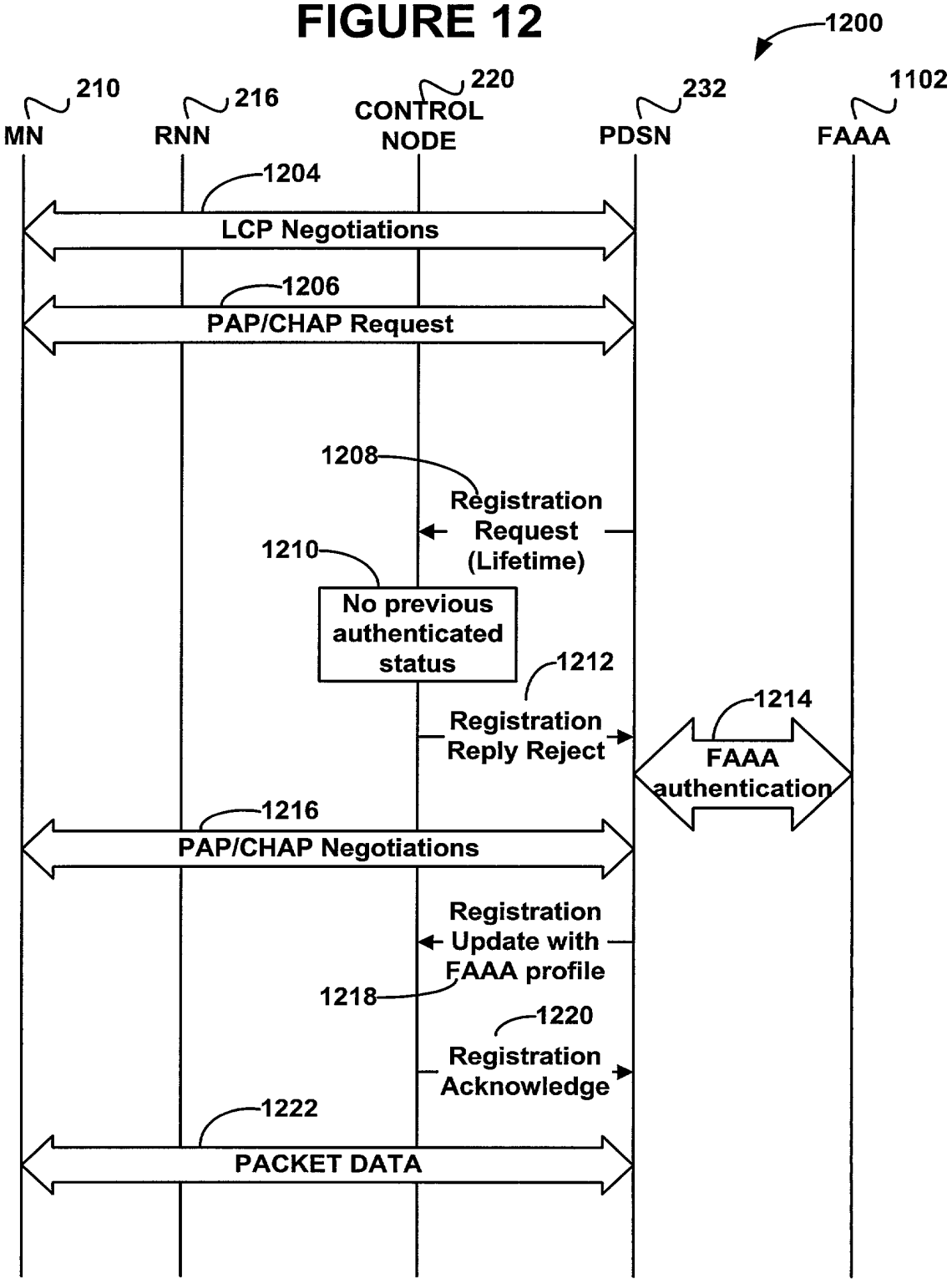

1100
210
MOBILE NODE
216
RADIO NETWORK NODE
220
CONTROL NODE
232
PDSN
24
HA
1102
FAAA
PPP Negotiations 1104
AGENT DISCOVERY 1106
1108
Registration Request (Lifetime)
Registration Request (Lifetime)
1110
No previous authenticated status 1112
1114
Registration Reply Reject
FAAA authentication 1116
1118
Registration Request
1120
Registration Reply Accept
1122
Regustration Reply (Lifetime, accept)
1124
Registration Update with FAAA profile
1126
VISITOR LIST REG ACK
PACKET DATA CALL UP 1128

FIGURE 12


1200
210
MN
216
RNN
220
CONTROL NODE
232
PDSN
1102
FAAA
1204
LCP Negotiations
1206
PAP/CHAP Request
1208
Registration Request (Lifetime)
1210
No previous authenticated status
1212
Registration Reply Reject
1214
FAAA authentication
1216
PAP/CHAP Negotiations
Registration Update with FAAA profile
1218
1220
Registration Acknowledge
1222
PACKET DATA

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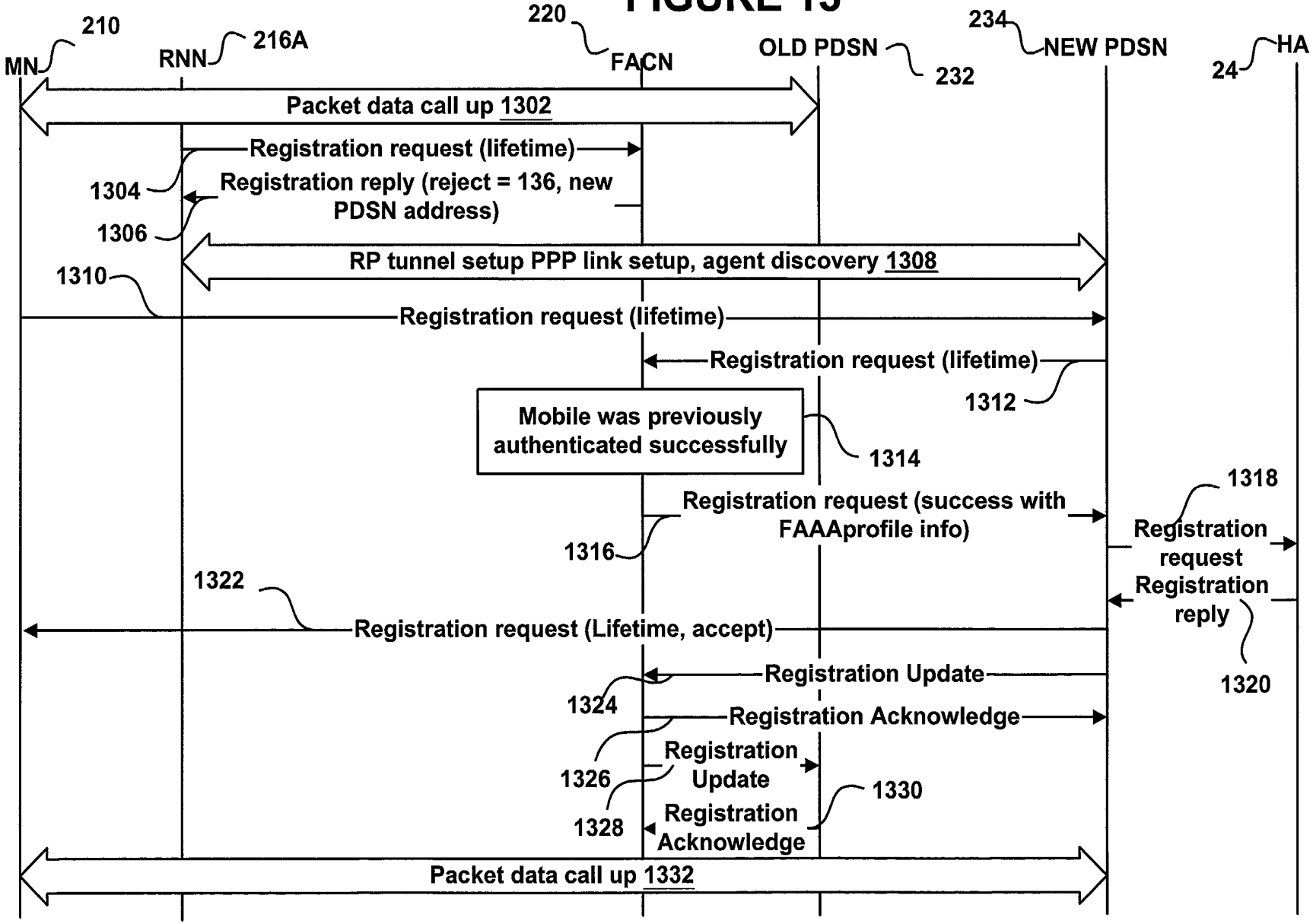
FIGURE 13